

AMENDMENTS TO CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-62. (Cancelled)

63. (Currently amended) A light communication device comprising:

a detecting means for detecting an internal state of a living body and for generating a signal representing the detected state;

a transmitting means for transmitting light whose polarization state is ~~modulated on the basis of plane~~ is rotated according to the signal;

a receiving means for receiving and demodulating the light to extract the signal included in the light; and

a controlling means for receiving the extracted signal.

64. (Currently amended) A light communication device comprising:

a controlling means for generating a control signal;

a transmitting means for transmitting light whose polarization state is ~~modulated on the basis of plane~~ is rotated according to the control signal;

a receiving means for receiving and demodulating the light to extract the control signal included in the light; and

a physiological function assisting means for assisting a function of a living body on the basis of the control signal.

65. (Previously presented) The light communication device of Claim 63, wherein the transmitting means comprises a planar emission laser.

66. (Previously presented) The light communication device of Claim 64, wherein the transmitting means comprises a planar emission laser.

67. (Previously presented) The light communication device of Claim 63, wherein the transmitting means comprises:

a light source comprising a plurality of planar emission laser diodes formed on a semiconductor substrate, each of which having a different direction of polarization; and

driving means for driving selectively the plurality of planar emission lasers.

68. (Previously presented) The light communication device of Claim 64, wherein the transmitting means comprises:

a light source comprising a plurality of planar emission laser diodes formed on a semiconductor substrate, each of which having a different direction of polarization; and

driving means for driving selectively the plurality of planar emission lasers.

69. (Previously presented) The light communication device of Claim 63, further comprising a display unit that displays information regarding a living body on the basis of the extracted signal.

70. (Previously presented) The light communication device of Claim 63, further comprising a holding means for holding the detecting means in a position to detect light transmitted by the transmitting means.

71. (Currently amended) A light communication system for performing communication between a physiological function assisting device and a controlling device, the system comprising:

in the physiological function assisting device,

means for detecting an internal state of a living body and generating a data signal representing the detected state;

a first transmitting means for transmitting light whose polarization ~~state is modulated on the basis of plane is rotated according to~~ the detected data signal;

a first receiving means for receiving and demodulating light transmitted by said controlling means to extract a control signal included in the light;

in the controlling device,

means for generating the control signal;

a second transmitting means for transmitting light whose polarization state is ~~modulated on the basis of~~ plane is rotated according to the control signal; and a receiving means for receiving and demodulating light transmitted by said physiological function assisting device, to extract the data signal included in the light.

72. (Cancelled)

73. (Cancelled)

74. (Previously presented) The light communication system of Claim 71, wherein at least one of the first transmitting means and the second transmitting means comprises a planar emission laser.

75. (Previously presented) The light communication system of Claim 71, wherein at least one of the first transmitting means and the second transmitting means comprises:

a light source comprising a plurality of planar emission laser diodes formed on a semiconductor substrate, each of which having a different direction of polarization; and

driving means for driving selectively the plurality of planar emission lasers.

76. (Previously presented) The light communication system of Claim 71, further comprising a display unit that displays information regarding a living body on the basis of the extracted control signal.

77. (Previously presented) The light communication system of Claim 71, further comprising a holding means for holding the controlling device in a position so that the second detecting means can detect light transmitted by the transmitting means.

78. (Currently amended) A light communication system for performing communication between a physiological function assisting device and a controlling device, the system comprising:

in the physiological function assisting device,

means for detecting an internal state of a living body and generating a data signal representing the detected state;

a first transmitting means for transmitting light whose intensity is modulated on the basis of the detected data signal;

a first receiving means for receiving and demodulating light transmitted by said controlling means to extract a control signal included in the light;

in the controlling device,

means for generating the control signal;

a second transmitting means for transmitting light whose polarization state is ~~modulated on the basis of~~ plane is rotated according to the control signal; and a receiving means for receiving and demodulating light transmitted by said physiological function assisting device, to extract the data signal included in the light.

79. (Currently amended) A light communication system for performing communication between a physiological function assisting device and a controlling device, the system comprising:

in the physiological function assisting device,

means for detecting an internal state of a living body and generating a data signal representing the detected state;

a first transmitting means for transmitting light whose polarization state is ~~modulated on the basis of~~ plane is rotated according to the detected data signal;

a first receiving means for receiving and demodulating light transmitted by said controlling means to extract a control signal included in the light;

in the controlling device,

means for generating the control signal;

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a second transmitting means for transmitting light whose intensity is modulated on the basis of the control signal; and a receiving means for receiving and demodulating light transmitted by said physiological function assisting device, to extract the data signal included in the light.